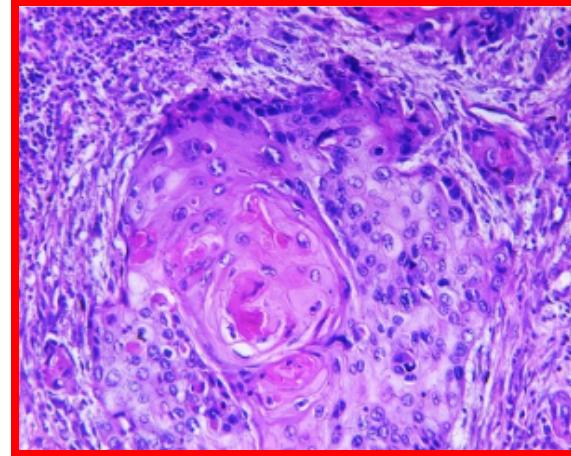


Exhibit D**Infringement of Claim 1 of U.S. Patent Number 7,088,854 by RSIP Vision**

CLAIM LANGUAGE	Infringing Application
<p>1. A computer program product for generating special-purpose image analysis algorithms comprising: a computer usable medium having computer readable program code embodied therein, said computer readable program code configured to:</p>	 <p>RSIP VISION Global Leader in Computer Vision and Deep Learning</p> <p>Home Our Work Consulting Blog News / Events Magazine Careers Contact Us <input data-bbox="1854 523 1881 545" type="button" value="Search"/></p> <p>Medical Segmentation</p> <p>RSIP Vision is very active in all fields of <u>medical image processing</u> and computer vision applications. Besides all our work in the domain of Artificial Intelligence for <u>cardiology</u>, <u>ophthalmology</u>, <u>pulmonology</u> and <u>orthopedics</u>, our engineers have contributed to many other medical segmentation projects helping our clients to improve public health and save thousands of lives. These medical applications in computer vision help physicians perform early identification of major diseases in brain, kidney, prostate and many other organs. <u>Contact us</u> and tell us about your medical computer vision project: we will help you complete with success all medical segmentation tasks.</p> <p><u>https://www.rsipvision.com/medical-segmentation/</u></p> <p>RSIP Vision imaging technology (“Infringing Product”) is a computer program product for generating image analysis.</p>

Exhibit D

obtain at least one image having a plurality of chromatic data points;



Squamous cell carcinoma

Automated tumor cells segmentation:

Quantification of biomarker expression in a cancer sample tissue is based on **segmentation and classification of the image** into several classes. At first, tissue stains need to be de-convolved to examine the expression distribution among cells belonging to the tissue under observation. The color histograms are basic tools allowing separation of the image into several independent color channel histograms, allowing grouping of pixels into classes.

Next, morphological analysis of the cells forms a second level of separation. Abnormalities in cells often are detected by nuclear shape abnormalities. **Segmentation of nuclei** can be performed on the image histogram by maximal entropy segmentation into several layers, each layer representing a band of entropic image intensity values. Subsequent processing of the entropic image intensity values result in binary segmentation into nuclei and non-nuclei pixels. To complete nuclei segmentation, morphological operations are used to reduce false detection.

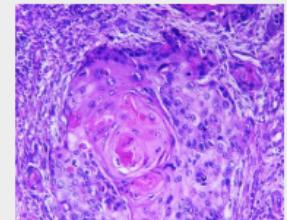
<https://www.rsipvision.com/automatic-segmentation-of-tumor-cells/>

The Infringing Product takes an image.

Exhibit D

Automatic segmentation of tumor cells

Visual examination of **tumor cells** is highly time-consuming and not readily available in clinical applications, where rapid intervention is crucial. Thus, manual segmentation of tumor cells by humans is a quite unpractical and non-trivial task even for experts. Therefore we propose a method for an automatic tumor cells segmentation in histological tissue with variable biomarker expression levels, using computer vision algorithms and machine learning. [Read more...](#)



<https://www.rsipvision.com/medical-segmentation/>

generate an evolving algorithm that partitions said plurality of chromatic data points within said at least one image into at least one entity identified in accordance with a user's judgment; and

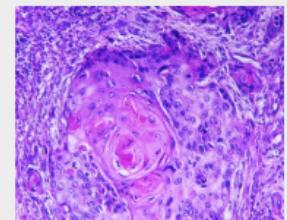
The Infringing Product generates an algorithm based on user manual annotation of objects of interest thereby training the algorithm.

Exhibit D

store a first instance of said evolving algorithm as a product algorithm wherein said product algorithm enables the automatic classification of instances of said at least one entity within at least one second image in accordance with said judgment of said user.

Automatic segmentation of tumor cells

Visual examination of **tumor cells** is highly time-consuming and not readily available in clinical applications, where rapid intervention is crucial. Thus, manual segmentation of tumor cells by humans is a quite unpractical and non-trivial task even for experts. Therefore we propose a method for an automatic tumor cells segmentation in histological tissue with variable biomarker expression levels, using computer vision algorithms and machine learning. [Read more...](#)



<https://www.rsipvision.com/medical-segmentation/>

The Infringing Product stores the evolving algorithm and runs the stored algorithm on all the data to automatically classify additional image of similar type/requirement.